

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 2, 3, and 5-11 AMEND claim 1, and ADD new claims 12-15 in accordance with the following:

1. (Currently Amended) An electrocorrosion preventive rolling bearing assembly, ~~which comprises~~comprising:
an inner raceway member;
an outer raceway member;
at least one circumferential row of a plurality of rolling elements rollingly interposed between respective raceway grooves of the inner and outer raceway members;
an electrically insulating layer formed on at least one of the inner and outer raceway members so as to cover a peripheral surface and opposite annular end faces of such at least one of the inner and outer raceway members, the peripheral surface of such at least one of the inner and outer raceway members being engageable with either a housing or a shaft; and
a tool reference plane defined in at least one of opposite sides of the raceway groove of the raceway member, the tool reference plane being utilizable for a process of finishing the electrically insulating layer or for a thickness control of the insulating layer,
wherein the tool reference plane is defined by a bare surface area in the end face of the raceway member, which is left uncovered by the insulating layer.

2. (Cancelled)

3. (Cancelled)

4. (Original) The electrocorrosion preventive rolling bearing assembly as claimed in Claim 1, wherein the tool reference plane is a surface area formed by means of a hardened steel cutting process or a grinding process.

5-11. (Cancelled)

12. (New) An electrocorrosion preventive rolling bearing assembly, comprising:
inner and outer raceway members;
at least one circumferential row of a plurality of rolling elements rollingly interposed between respective raceway grooves of the inner and outer raceway members; and
an electrically insulating layer formed on at least one of the inner and outer raceway members to cover a peripheral surface and opposite annular end faces of such raceway member,
wherein such raceway member has a tool reference surface defined in at least one of the opposite annular end faces, the tool reference surface being defined by a bare surface area on at least one of the end faces that is left uncovered by the insulating layer, such that during a process of finishing or controlling a thickness of the electrically insulating layer, a support fixture engages the tool reference surface and an adjacent edge of the electrically insulating layer.

13. (New) The electrocorrosion preventive rolling bearing assembly according to claim 12, wherein the tool reference surface is defined in both opposite annular end faces.

14. (New) A method of manufacturing an electrocorrosion preventive rolling bearing assembly including inner and outer raceway members and at least one circumferential row of a plurality of rolling elements rollingly interposed between respective raceway grooves of the inner and outer raceway members, the method comprising:

forming an electrically insulating layer on at least one of the inner and outer raceway members to cover a peripheral surface and opposite annular end faces of such raceway member, but not forming the insulating layer on a portion of at least one of the end faces, such portion defining at least one tool reference surface;

measuring an axial distance between the tool reference surface and the annular outer surface of the insulating layer on the opposing end face, to determine a depth for machining the annular outer surface of the insulating layer on the opposing end face;

applying a backing plate to engage the tool reference surface and an adjacent edge of the electrically insulating layer, to support the electrocorrosion preventive rolling bearing assembly;

machining the annular outer surface of the insulating layer on the opposing end face; and

using the machined annular outer surface of the insulating layer on the opposing end face as a reference, machining an annular outer surface of the insulating layer on the remaining end face, such that an axial length between the machined annular outer surface of the insulating layer on the opposing end face and the machined annular outer surface of the insulating layer on the remaining end face is within a predetermined tolerance of a target axial length.

15. (New) A method of controlling a thickness of an insulating layer on an outer race of a rolling bearing assembly, comprising:

measuring a first distance between an annular tool reference surface disposed on a first end face of the outer race and a second end face of the outer race remote from the tool reference surface, wherein the tool reference plane is defined by an indented radial surface area of a step defined in the first end face;

after an insulating layer has been applied on an outer peripheral surface of the outer race, the outer peripheral surface including the first and second end faces, but not including the tool reference surface, determining a first depth for machining the annular outer surface of the insulating layer on the second end face using a second distance measured between the annular tool reference surface and an annular outer surface of the insulating layer on the second end face; and

after machining the annular outer surface of the insulating layer on the second end face to the determined depth, determining a second depth for machining the annular outer surface of the insulating layer on the first end face using a third distance measured between the machined annular outer surface of the insulating layer on the second end face and the annular outer surface of the insulating layer on the first end face, and a desired final axial length.